

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (previously presented) A bearing comprising:
a temperature conducting housing;
a bearing element disposed within the housing;
an oil sump to house lubricant for the bearing element;
a plurality of motor driven electric fans mounted to the bearing housing, wherein the plurality of motor driven electric fans are adapted to transfer heat from the bearing housing by forced convection;
a temperature sensor disposed within the bearing housing adjacent to the bearing element and adapted for determining a temperature within the bearing housing; and
a logic controller coupled to the temperature sensor and operable to selectively operate each of the plurality of motor driven electric fans based on the temperature within the bearing housing.
2. (previously presented) The bearing of claim 1, wherein the bearing housing includes an oil sump, and wherein at least one of the plurality of motor driven electric fans is disposed adjacent to the oil sump.
3. (original) The bearing of claim 1, wherein the bearing housing includes a plurality of cooling fins.
4. (canceled).

5. (previously presented) The bearing of claim 1, wherein the temperature sensor is adapted for determining the temperature of the bearing element.

6. (previously presented) The bearing of claim 1, wherein the temperature sensor is adapted for determining the temperature of an oil sump within the bearing housing.

7. (previously presented) The bearing of claim 1, wherein the logic controller is adapted to receive a signal from the temperature sensor, process the signal, and selectively operate each of the plurality of motor driven electric fans according to the received signal.

8. (original) The bearing of claim 7, wherein the signal from the temperature sensor is generated according to the temperature within the housing.

9. (previously presented) The bearing of claim 8, wherein an upper temperature limit is pre-selected and wherein the logic controller is adapted to turn at least one motor driven electric fan on based upon a relationship between a sensed temperature and the upper temperature limit.

10. (previously presented) The bearing of claim 9, wherein a lower temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one motor driven electric fan off based upon a relationship between a sensed temperature and the lower temperature limit.

11. (previously presented) The bearing of claim 1, wherein the plurality of motor driven electric fans comprises at least one primary fan and at least one secondary fan.

12. (original) The bearing of claim 11, wherein a first temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one primary fan on based upon a relationship between a sensed temperature and the first temperature limit.

13. (original) The bearing of claim 12, wherein a second temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one secondary fan on based upon a relationship between a sensed temperature and the second temperature limit.

14. (original) The bearing of claim 13, wherein a third temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one secondary fan off based upon a relationship between a sensed temperature and the third temperature limit.

15. (original) The bearing of claim 14, wherein a fourth temperature limit is pre-selected and wherein the logic controller is adapted to turn the at least one primary fan off based upon a relationship between a sensed temperature and the fourth temperature limit.

16. (previously presented) The bearing of claim 1, wherein each of the plurality of motor driven electric fans are adapted to operate at variable speeds and wherein the logic controller is adapted to control the speed of each of the plurality of motor driven electric fans .

17. (previously presented) A method for controlling the temperature of a bearing having a housing and a bearing element disposed within the housing, the method comprising:

mounting a plurality of fans on the bearing housing to remove heat from bearing element lubricant disposed within the bearing housing;

disposing a temperature sensor within the bearing housing adjacent to the bearing element;

electrically coupling a logic controller between the plurality of fans and the temperature sensor; and

adapting the logic controller to receive a signal from the temperature sensor and to operate at least one of the plurality of fans at various speeds in response to the signal received.

18. (canceled).

19. (previously presented) The method of claim 17, wherein the housing includes an oil sump and disposing a temperature sensor comprises disposing the temperature sensor adjacent to the bearing element and within the oil sump.

20. (previously presented) The method of claim 17, comprising pre-selecting a temperature range in which the plurality of fans will operate.

21. (previously presented) The method of claim 17, wherein mounting the plurality of fans comprises mounting at least one primary fan and at least one secondary fan.

22. (original) The method of claim 21, comprising pre-selecting at least first and second temperature limits and adapting the logic controller to operate at least one primary fan in response to a signal received which corresponds to the first temperature limit and to operate at least one secondary fan in response to a signal received which corresponds to the second temperature limit.

23. (currently amended) A bearing, comprising:
means for mounting at least one bearing element within a housing;
means for mounting a plurality of fans to within the housing;
means for discerning a temperature of the at least one bearing element; and
means for variably controlling the speed of the plurality of fans in correlation with
the temperature discerned of the at least one bearing element.

24. (currently amended) The bearing of claim 23, comprising means for
storing oil.

25. (canceled)

26. (previously presented) A system comprising:
a plurality of bearings, each bearing including a thermally conductive housing and a
bearing element disposed within the housing;
a plurality of fans affixed to the housing of each bearing;
a temperature sensor disposed within the housing of each bearing adjacent to the
bearing element and corresponding to the fans affixed on the same bearing; and
a logic controller adapted to receive a signal from each temperature sensor and to
operate at least one of the corresponding fans at various speeds according to the received
signal.

27. (previously presented) The system of claim 26, further comprising an oil
sump formed in each bearing housing, and wherein at least one of the fans is disposed
adjacent to each oil sump.